

Examining sites in our school community.

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What are Brownfields?

 Brownfields are abandoned or under utilized properties. Many Brownfields may contain chemicals that are harmful to our environment.



Why is it important for us to study Brownfields?

- Some of these sites threaten the wellbeing of the community by polluting soil and water.
- Brownfields affect the quality of life in our community creating vacant lots available for crime and vandalism.
- Businesses will not open in our community if it is littered with Brownfields.



Brownfields in our Community

- Through Our Town, we identified four possible Brownfields in our community.
- The sites are:
 - -Sherman and Raymond
 - -Troy and Keystone
 - Troy and Carson
 - -Troy and Stanley

Sherman and Raymond

 We decided to focus on the site on Sherman and Raymond because it was closest to our school and redeveloping the site would have the greatest positive impact on our school.





Evidence that this site may be a Brownfield:

- Concrete Slabs
- Open Electrical Wires
- Garbage
- Abandoned without a "For Sale" sign
- Dead patches of grass and weeds

This site may have been a gas station before it was abandoned.

Our other sites



What are we focusing on in our study of Brownfields?

We are examining the negative effects of Brownfields in our community and how to reverse those effects through redevelopment. We are especially focusing on the effects of Brownfields on crime in our community and the health effects of Brownfields in our community.

In our Brownfields group we found some information on the internet about how many crimes occur in Brownfields. We found out that many crimes occur in abandoned houses and buildings. Crimes tend to occur in these places because no one is around to prevent them.

We also researched some of the chemicals that might be present in Brownfield sites. Many chemicals in a Brownfield contain benzene, asbestos, arsenic, lead, and mercury. We focused on Benzene because it has been found in elevated amounts in our air in the area north of school due to the many industrial plants on the Southside of Indianapolis.

What is Benzene?

Benzene is a colorless liquid with a sweet odor. Benzene can be produced from volcanoes and forest fires. Benzene is also a part of crude oil, gasoline, and cigarette smoke.

Negative Health Effects of Benzene

- Short Term
 - -Confusion
 - -Damage to Nervous System
 - Anemia
- Long Term
 - -Leukemia
 - Damage to the reproductive system

What are we trying to accomplish?

We are trying to encourage people to help us clean up our community and get rid of the Brownfields. Brownfields cause a weak community and more abandoned houses. We are also trying to educate people on the dangers that Brownfields can cause.

Where are we going with this Brownfields Project?

 We are focusing on cleaning up Brownfields and thinking of other places to replace them. We are also trying to find out what other ways Brownfields are harmful to the community. We are focusing on how we can make people aware of this issue. We want Brownfields rebuilt so their can be less gang and criminal activity in our neighborhoods. We want more useful and positive places for teens in place of these Brownfields.

In our Brownfields group we are also trying to get more information and go to different schools in the Indianapolis area to show them how serious of an issue Brownfields can be. We want to educate them on what we learned while completing the Our Town Curriculum. We also want to think of ways to collect money to rebuild Brownfields into homes, stores, malls, and teen centers.





Students

engaged in

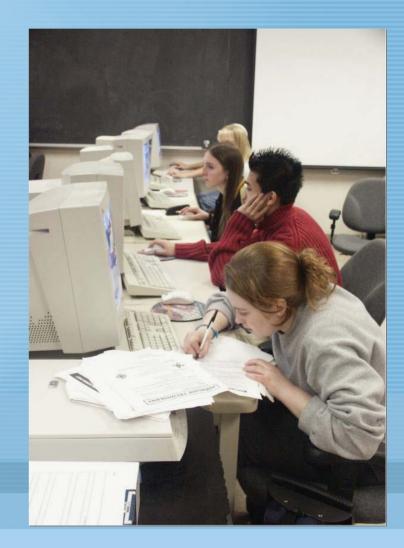
designing

solutions

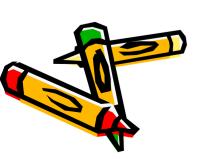
for local

real world

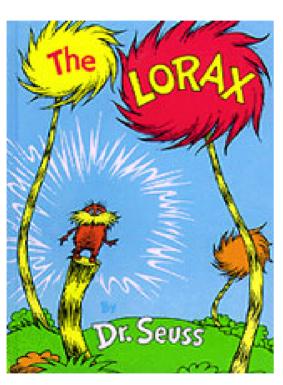
problems.



4th-6th grade students identify and map brownfield sites in their community, explore the connections between ecology and community health, and explore the importance of maintaining a healthy, sustainable, growing community.



The Lorax, by Dr. Seuss

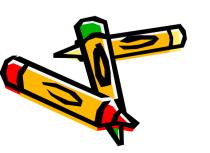


- Keep your community clean
- Only use what you need
- Replace what you use whenever possible

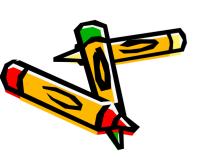




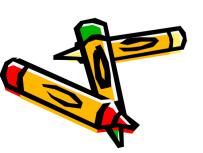
Middle school students explore the potentially negative effects that brownfields have on local public health and the quality of life for area residents. Science activities focus on pathways by which substances can contaminate groundwater, and lab activities enable students to examine relative toxicity.



High school science students research the history of sites, review regulatory records, explore geological and hydrological conditions using web based GIS, and complete basic phase I environmental assessments for local brownfields.



High school economics students work with members of the business community, local government, and area residents to design reuse/redevelopment proposals for selected brownfield sites by applying an economic decision making model. Students present these plans to local stakeholders at Our Town Presentations.



900 Ferry Street



By: Kyle Gray, Marion Burke, Kate Burklow, Chris Burgess, and Micayla Downey

Past and Present

Former Usage

Gas station

Possible Ideas

- Igloo Restaurant
- A dollar store such as Dollar Tree

POTENTIAL CONTAMINANTS

- Gasoline
- Oil
- Diesel
- Antifreeze
- Steel Residue
- Lead



Resources

 Environmental Issues Site History and Regulatory Review File

- Internet Resources
 - Environmental Protection Agency
 - EnviroTools
 - ToxTown





SITE HISTORY

- Owner: High Point Oil Company
- It is now an empty lot but was once used as a gas station.
- There was a concrete slab that was used to park buses. The slab has been gone since May 21, 1998.

REGULATORY REVIEW

- * Five tanks were installed on the property.
- There was one leaking incident at the site on August 20, 1997.
- The tanks were removed in 1998.
- ** 60 cubic yards of soil was taken off the site and placed in a landfill.

GEOLOGY

- Sand Thickness: 10-25 feet
- Clay Thickness: 25-50 feet
- * Bedrock Geology: Devonian-Mississippian
- * Physiography: Central Till Plain

HYDROGEOLOGY

- Floodplain: 0.4 miles away
- Wetland: 0.5 miles away
- Water Well: 0.2 miles away
- Surface Water: Wabash River 0.5 miles away

RESOURCES

- County Assessor's Office
- Tippecanoe Historical Association (Patty Burinsma)
- Indiana GIS
- Monon Historical Society (Ken Weller)
- Indiana Department of Environmental Management (Susan Tynes)



Quick Facts

- Lot size is 126 feet by 100 feet
- No basement can be built due to chemicals in the soil
- Needs to be thoroughly cleaned before building begins
- Pave over lot

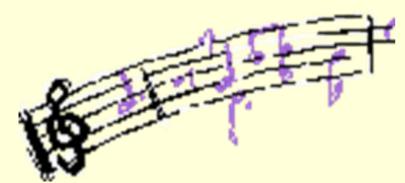




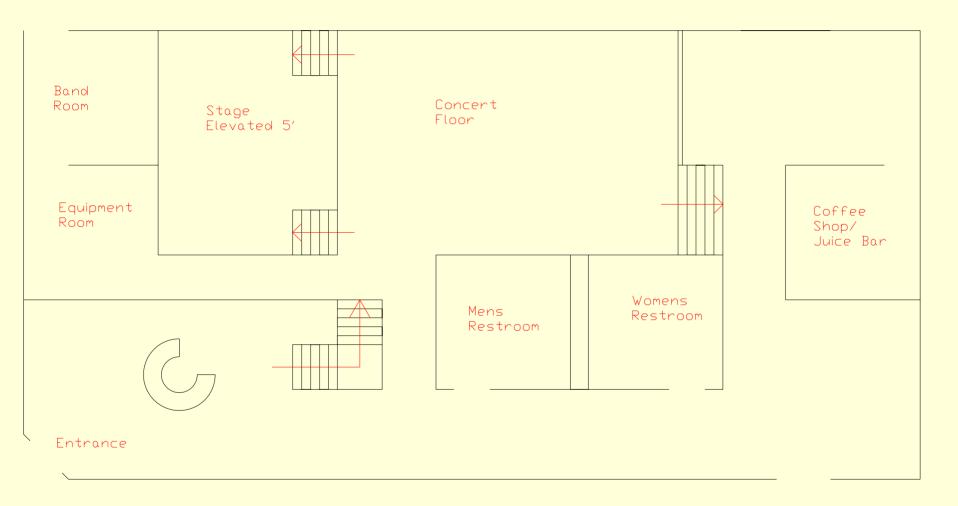
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Music and Art Display Centerenter



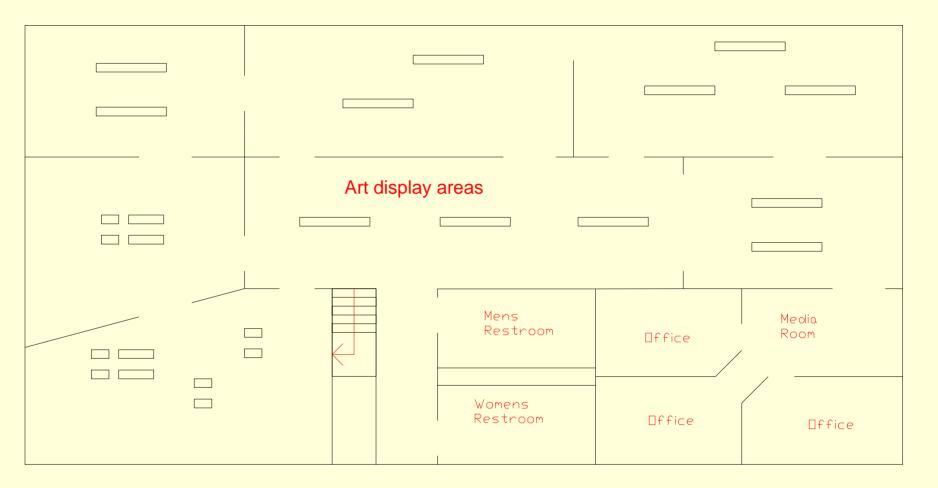
First floor





Possible models of stage and juice bar

Second floor





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